

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the previous amendments and following remarks.

The specification is amended to address the minor typographical error kindly pointed out by Examiner Burch in the middle of page two of the Official Action. Accordingly, withdrawal of the objection to the specification is respectfully requested.

Also, the Abstract is amended to delete the "means" terminology and to incorporate other minor changes.

Claims 1 and 2 are amended, and new Claims 4-19 are added. Support for the subject matter of new Claim 4 can be found in the specification at lines 23-24 of page 7, support for the subject matter set forth in new Claim 5 can be found in the paragraph bridging pages 6 and 7, support for the subject matter of new Claims 6, 12 and 13 can be found for example at lines 8- 25 of page 5, support for the subject matter of new Claims 7, 8, 14 and 15 can be found at lines 8-16 of page 7, support for the subject matter of new Claims 9 and 16 can be found at lines 23-24 of page 7, support for the subject matter of new Claim 10 can be found beginning at line 16 of page 3, support for the subject matter of new Claims 11 and 19 can be found in the paragraph bridging pages 6 and 7, and support for the subject matter of new Claims 17 and 18 can be found in the discussion beginning at line 5 of page 6. No new matter is introduced by the new claims or amended claims.

The subject matter of this application pertains to what is termed a hybrid vehicle slip stop device, meaning that the slip stop device is a hybrid type of slip stop device. As recited in Claim 1, the hybrid slip stop device comprises a plurality of

different types of slip stop means for preventing slip of the vehicle by increasing the frictional resistance relative to the road surface on which the vehicle is traveling.

The Office Action rejects claims 1-3 under 35 U.S.C. §102(b) over U.S. Patent No. 6,447,009 to McMillan. This rejection is respectfully traversed.

McMillan describes an emergency braking system that employs an adhesive or viscous substance that is applied to the road surface. The system includes a jet 20 containing adhesive. The jet 20 sprays the adhesive 24 onto the road surface via a nozzle to increase the coefficient of friction on the road surface. McMillan also describes that a cooling spray 28 can also be provided to facilitate cooling of the adhesive applied by the jet 20.

The hybrid slip stop device at issue here differs in fundamental respects relative to the disclosure in McMillan. As set forth in original Claim 1, the hybrid slip stop device comprises a plurality of different types of slip stop means for preventing slip of the vehicle by increasing the frictional resistance relative to a road surface on which the vehicle is traveling. In McMillan, the cooling spray 28 does not increase the frictional resistance relative to the road surface on which the vehicle is traveling. Rather, as noted above, the cooling spray 28 merely applies a cooling spray to the adhesive 24 previously applied by the jet 20. To make this distinction more clear, Claim 1 is amended to recite that each of the plurality of different types of slip stop means performs the function of preventing slip of the vehicle by itself and independently of the other slip stop means. In McMillan, the cooling spray 28 does not, by itself and independently of the jet 20, increase the frictional resistance relative to the road surface on which the vehicle is traveling. It is thus respectfully submitted that Claim 1 is patentably distinguishable over the disclosure in McMillan.

New independent Claim 6 recites that the hybrid slip stop device comprises a slip preventive material dispenser which is mounted on a vehicle and which dispenses slip preventive material to increase a frictional resistance between a wheel of the vehicle and the road surface, slip stop means mounted on the vehicle for preventing slip of the vehicle by increasing the frictional resistance relative to a road surface on which the vehicle is traveling, wherein the slip stop means is of a type that is different from the slip preventive material dispenser, and a controller that actuates each of the slip preventive material dispenser and the slip stop means according to a predetermined condition. Claim 6 also recites that each of the slip preventive material dispenser and the slip stop means perform the function of preventing slip of the vehicle by itself and independently of one another.

McMillan does not disclose a slip stop means in addition to a slip preventive material dispenser as claimed, wherein the slip preventive material dispenser and the slip stop means each perform the function of preventing slip of the vehicle by itself and independently of one another.

New independent Claim 13 recites that the hybrid slip stop device comprises a movable plate mounted on a vehicle and movable from a position spaced from a road surface to a position contacting the road surface to increase a frictional resistance of the vehicle relative to the road surface, slip stop means mounted on the vehicle for preventing slip of the vehicle by increasing the frictional resistance relative to a road surface on which the vehicle is traveling, wherein the slip stop means being of a type that is different from the movable plate, and a controller that actuates each of the movable plate and the slip stop means according to a predetermined condition. Also, Claim 13 sets forth that each of the movable plate

and the slip stop means performs the function of preventing slip of the vehicle by itself and independently of one another.

The claimed hybrid slip stop device set forth in Claim 13 is patentably distinguishable over the disclosure in McMillan in that McMillan lacks disclosure of a movable plate mounted on the vehicle and movable from a position spaced from a road surface to a position contacting the road surface to increase the frictional resistance of the vehicle relative to the road surface. Also, consistent with the observation above regarding Claim 1, McMillan does not disclose the movable plate in combination with a slip stop means as claimed, wherein each functions to prevent slip of the vehicle by itself and independently of one another.

The dependent claims are allowable at least by virtue of their dependence from allowable independent claims. The dependent claims also recite further distinguishing aspects associated with the claimed hybrid slip stop device. For example, new Claim 5 recites the controller that actuates the plurality of different types of slip stop means under a predetermined condition, and further recites that the controller compares a stepping force applied to the brake pedal and the deceleration of the vehicle with respective thresholds to determine if the predetermined condition is satisfied. In a somewhat similar manner, Claims 11 and 19 set forth that the controller is configured to compare the stepping force on the brake pedal and the deceleration of a vehicle with respective thresholds to determine if the predetermined condition is satisfied. The control system 12 in McMillan does not compare the stepping force applied to the brake pedal and the deceleration of the vehicle with respective thresholds to determine satisfaction of the predetermined condition for actuating the different types of slip stop means.

New Claim 12 further defines that the slip stop means of Claim 6 comprises a brake plate mounted on the vehicle and movable from a position spaced from a road surface to a position contacting the road surface to increase a frictional resistance of the vehicle relative to the road surface. As noted previously, McMillan does not disclose such a movable plate.

Claims 9 and 16 set forth a selection switch that allows the user to select and actuate at least one of the slip stop means and the movable plate/slip preventive material dispenser. No such selection switch is disclosed in McMillan.

Claim 17 recites that the slip stop means comprises a container containing slip preventive material and a nozzle connected to the container from which the slip preventive material in container is dispensed. Claim 17 also defines the accumulator that is connected to the nozzle by way of at least one valve, with the accumulator containing a pressurized gas to dispense the slip preventive material in the container from the nozzle. Further, Claim 18 recites that the at least one valve is connected to the container and to the nozzle, and permits communication of the accumulator with the container to supply the pressurized gas to the container to dispense the slip preventative material from the nozzle, while also preventing communication of the accumulator with the container so that the pressurized gas in the accumulator is supplied to the nozzle. No such construction is disclosed in or envisioned by McMillan.

Early and favorable action with respect to this application is respectfully requested.


Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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